

ABSTRACT OF THE DISCLOSURE

A system for measuring the delivery of electrical energy from an energy supplier to a consumer through an electric circuit is disclosed. The system includes devices coupled with the network. Each device comprises a sensor, an analog to digital converter, a processor and communications ports. The sensor is coupled with the electric circuit, senses power parameters in the circuit and generates an analog signal indicative thereof. The converter is coupled with the sensor and converts the analog signal to a representative digital signal. The processor is coupled with the converter and generates a computed value from the digital signal. Each of the ports is operative to receive communications from the network and transmit the communications to the processor. The ports are coupled with the network, wherein each device engages in multiple substantially simultaneous communications from the ports, and whereby one of the devices communicates with another device over the network.